

Published weekly for employees of Lawrence Livermore National Laboratory

Friday, October 26, 2001

Vol. 26, No. 43

JACQUELINE McBride/TID

Five years ago, this was a just a dirt field hiding a few mammoth bones. More than 1.7 million hours of craft labor later, the massive NIF conventional facility is now complete.

## NIF conventional facility complete

By Sue Stephenson

NEWSLINE STAFF WRITER

Almost five years ago, the Laboratory and the Department of Energy set a major milestone for the National Ignition Facility: complete the \$196 million conventional facility by the end of September 2001. On Friday, Sept. 28, that milestone was met.

"We have now taken beneficial occupancy of the facility. We have successfully met our milestone, after many years of hard work by a dedicated team," said Valerie Roberts, the NIF construction manager who led the planning and execution of much of this effort.

With acceptance of the last construction package for the target area building, the entire conventional facility has been formally accepted from the

See NIF, page 8

#### An unconventional facility

Although called conventional, the 500,000-square-foot National Ignition Facility represents the largest construction project ever executed at the Laboratory.

Here are some of the feats it took to build the conventional facility:

- Moved more than 210,000 cubic yards of soil;
- Placed more than 73,000 cubic yards of concrete and 7,600 tons, of reinforcing steel (rebar):
  - Erected 5,100 tons of structural steel;
- Commissioned double-decker, house-size air handling systems to meet strict thermal, vibration and acoustic specifications;

See **FACILITY**, page 8

## Employees eager to return to HOME following terrorist attacks, aftermath

By Lynda Seaver

NEWSLINE STAFF WRITER

In the aftermath of the Sept. 11 terrorist attacks, some Lab employees are keeping a little closer to HOME — in this case, the campaign to Help Others More Effectively

The HOME Campaign, the Laboratory's annual fund-raising effort to help community-based charities,

along with umbrella agencies such as the United Way and the Tri-Valley Community Fund, among others, returns on Wednesday, Oct. 31. The Nonproliferation, Arms Control and International Security Directorate will chair this year's while campaign, Computation will sponsor the annual Run for HOME and Agency Fair, which kicks off the campaign (see accompanying story).



Race is on in Run for HOME
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Following the events of Sept. 11, employees began calling the organizers of the HOME Campaign to see if charities such as the United Way's Sept. 11 Fund or the American Red Cross would be included in this year's drive. Those funds were quickly added to the campaign.

"Employees have a real interest in helping any way they can," said Roger Werne, this year's campaign chairman. "The HOME Campaign has always been about awareness of other people's needs. That need is pretty evident this year."

See **HOME**, page 7

## SAFE Program manager will discuss his insights on how to catch terrorists

**By Jeff Morris** 

SAFE PROGRAM

While countering terrorism has been foremost on everyone's mind since Sept. 11, some people have made a career of it. Terry Turchie is one of those people.

On Tuesday, Oct. 30, the former deputy assistant director of the FBI's Counterterrorism Division and current manager of the Laboratory's the Security Awareness For Employees (SAFE) Program, will share his insights on "How to Catch

See SAFE, page 7

## Smart Probe to begin testing at UC Davis

By Anne M. Stark

NEWSLINE STAFF WRITER

BioLuminate, the Silicon Valley start-up that has been working with the Lab since earlier this year to develop a breast cancer detection tool, will begin testing the new diagnostic tool on human volunteer patients at the UC Davis Medical Center next week.

Dubbed the "Smart Probe," the tool provides earlier, more accurate breast cancer detection that removes no tissue and is expected to achieve accuracy levels comparable to surgical biopsies in detecting cancerous cells.

The first series of testing on human volunteer patients will be on more than 200 women who already are scheduled for a surgical biopsy. With

the patients' consent, the doctor will first insert the "Smart Probe" into the suspicious lesion in the breast and then compare the data gathered from the "Smart Probe" to the pathology report obtained from the biopsy.

"With the knowledge learned in this study, we will be able to develop the first 'commercial' prototype," said BioLuminate President and CEO Richard Hular. "That prototype will be used in our next clinical study that will involve nearly 10,000 women. The data we acquire, each time the needle is inserted into a suspicious lesion and confirmed to be cancerous by pathology, enables us to teach the computer to become more accurate and recognize cancerous tissue on its own."

See SMART PROBE, page 7



Action teams dig into data

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Warning on Microsoft XP

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## \_AB COMMUNITY NEWS

## Weekly Calendar

Technical Meeting Calendar, page 4



**B Division's fall book sale** begins today and continues through Friday, 11:30 a.m. to 1:30 p.m. daily, in Bldg. 132, room 1200 (Q- or L-

cleared access only). The fall selection includes an abundance of cookbooks, science fiction, and kid's books as well as the usual fiction and nonfiction collection, along with videos, CDs and books-on-tape. All proceeds are used to buy Christmas gifts for needy children. Contact: Lynn Groves, 2-1684.

Tuesday 30

Learn how terrorists operate, how the national laboratories have helped foil many terrorist plots, and what needs to be done now. Also learn what pre-

cautions you can take when traveling at home and abroad, and what you can do to bring terrorists to justice, at a Security Awareness For Employees (SAFE) Program presentation on "How to Catch Terrorists." The unclassified talk takes place at 10 a.m. in the Bldg. 123 auditorium. The speaker is Terry Turchie, former deputy assistant director of the FBI's Counterterrorism Division and current SAFE program manager.

Wednesday 31

The Chinese American Networking Group will sell **egg rolls at the Run for HOME** on Oct. 31. Egg rolls are \$1 each (vegetari-

an or regular). Pre-orders can be made through Eric Chow, 2-0552 or chow6@llnl.gov. Pre-orders may be picked up in the parking area outside Bldg. 111, 11:30 a.m. to 12:30 p.m. All pre-orders remaining after 12:30 will be sold. All profits will be given to the American Red Cross.



An interactive stress management workshop led by training consultant Jewel McCrary will be held from 11:45 a.m. to 1:15 p.m. in

the Bldg. 123 auditorium. It is designed to help participants cope with the stress induced by recent events. Space is limited, and on a first-come, first-served basis. Employees/contract workers and their family members are welcome. Entrance into Bldg. 123 requires a badge. To arrange for a badge, send family member's full name, Social Security number and citizenship to Dawn Cunningham at cunningham25@llnl.gov or 3-6034 by Monday, Oct. 29, before noon. Family members must be U.S. citizens and must have a valid driver's license or DMV ID

card to receive their badge. Contact: Marnette



Yeager, 2-1217

The Retirees Analytical Chemistry Group, also known as the ACS (Aging Chemists Society) is having a no-host Chinese buffet lunch on Wednesday,

Nov. 7, at 11:45 a.m. at the Willow Tree in Dublin. Cost of the buffet is \$11. Spouses/friends are welcome. RSVP by Oct. 31 to Bob and Anna Lim, 447-3036.

## Student poster session



JULIE KORHUMMEL/NEWSLINE

Don Correll, a member of the Lab's Student Policy Committee, talks with graduate students Lilian Davila (left) and Cheryl Dolan (right) at a recent poster session for students who are fellows in the Student Employee Graduate Research Fellowship program. More than 30 students presented results from their graduate research at the poster session on Oct. 10 in the South Cafeteria. More information about the program is available on the Web at www.llnl.gov/urp/Sefellowship/

## Training offered for new online travel booking tool

Business Services, in partnership with Maritz Travel, is introducing a new online, Webbased travel booking tool that will allow Lab business travelers and arrangers to make reservations 24 hours a day, seven days a week via the Web. Travel reservations booked through this service are queued to TQ3 Maritz for policy check, quality control, and ticketing.

The new service is called Business Travel Solutions (BTS), and has been tested by a

pilot group that included employees from all directorates. The pilot group, formed in August 2000, booked more than 400 trips and offered Business Services some valuable "lessons learned," according to project manager Kimberly Dremalas.

Key features of BTS include:

- Searches for air, car and hotel based upon preloaded business and traveler/arranger created criteria (e.g., lowest fare search).
- Enables the traveler/arranger to create keystroke and timesaving templates of trips (particularly helpful for those who travel frequently to the same destination).
- Maintains historical records of trips for future reference.
- View, in BTS, trips booked by TQ3 Maritz agents and arrangers.
- Allows modifications and changes to be made online up to the day of travel.
  Allows the traveler/arranger to save a trip for
- later completion.

   Recognizes California State Airfares
- Recognizes California State Airfares (YCAL) fares and LLNL hotel and car rental agreements.
- Allows selection of airline seats with a convenient airline seat map (dependent on the user's



platform/browser and airlines participation).

- Creates city maps and weather reports for the destination city.
- Creates and sends the traveler and his or her designees an automatic e-mail of the itinerary.

Training for all interested users (travelers and arrangers) is scheduled on Wednesday, Oct. 31, 9-10 a.m., Bldg. 543 auditorium. The session is expected to last 45 minutes to an hour.

To learn more about BTS, contact Rocky Darbee at 3-5538, Victoria

Bonoan at 4-3791, or visit the BTS Web page at https://www-ais.llnl.gov/llnl\_only/docs/bsd/travel/bts\_main.html.

To obtain a password and begin booking travel arrangements online, contact the BTS Implementation team at bts-help@llnl.gov

#### Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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Printed on recycled paper

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## Around the Lab



## Aggressive survey assessment effort launched

Survey Action Teams began their efforts this week to assess the results of the employee survey, "Assessing the Workplace," and eventually submit recommendations to improve seven focus areas.

Most of the teams, which were formed last week, held introductory meetings and began analyzing the survey data as well as written employee comments. Some groups have already divided into subgroups, others are studying benchmarking data while others are considering a series of focus groups to obtain specific information.

A few teams will kick off their meetings today. What follows is an update on the various actions taken by the teams.

#### Work/Life Balance

Deputy Director Michael Anastasio has joined Bruce Warner as co-chair of the Work/Life Balance Survey Action Team. Anastasio replaces NAI AD Wayne Shotts, who is active in the current events on the East Coast.

The Work/Life Balance SAT has met as a group twice and conducted preliminary analysis of the employee survey data in three key areas: 1) flexibility in work schedules; 2) employee requests such as time-saving services, additional exercise options and enhanced child-care services; and 3) training for managers and supervisors and other communication issues.

To cover survey data more effectively, the team divided into three subgroups to focus on these areas. These subgroups are routinely meeting to discuss



findings and develop action recommendations.

#### Performance Management

Co-chairs Jeff Wadsworth and Jan Tulk will hold their first meeting with the team today. Team members Lee Younker and Merna Hurd, both associate deputy directors, are collecting information on how other institutions and similar research facilities conduct their performance management.

#### Career Development/Training

This team kicked off its meetings last week. Co-chair Den Fisher reported that team members came with a list of ideas; now the team will look at ways to give those ideas more of an institutional focus.

#### 800s/900s

This team will hold its first meeting today. Cochair Jens Mahler said the group will be looking specifically at training, recognition and communication issues. The group will also interface with career development and training SAT.

#### Post-docs

The Post-doc Survey Action Team met to discuss the team's charter, preliminary conclusions from the survey data and near-term plans. A significant preliminary conclusion of the data analysis is that the low score in comparison to Lab average regarding post-doc/supervisor relations is not supported by the item-level analysis; rather, it is an artifact of the methodology by which item-level data were compiled to category totals. The team discussed how to best convene focus groups of post-docs to get a better sense of key issues they face, including issues of foreign national employees and supervision. The overall goal is to identify actions that will make working at LLNL a great experience for postdocs.

#### Other teams

The Salary/Compensation, and Employee Empowerment groups all held initial meetings to analyze survey data. Teams will also analyze the individual employee comments.

## Warning: Microsoft's 'error reporting' can send your data across the Internet

As you know, the Laboratory works hard to protect the data processed by employees on LLNL's computers and networks. In this spirit, we need to alert employees to a new security issue found in the latest Microsoft products. Microsoft's Office XP, Windows XP, and Internet Explorer version 5 or higher offer a feature called "Error Reporting." This feature introduces a security risk to employees who use these products.

#### Microsoft's "error reporting" feature

The "Error Reporting" feature is activated when a user experiences a crash. Upon recovering from the crash, a window appears similar to the graphic below.

If the user clicks on the "Send Error Report" button, an error report is automatically sent across the Internet to Microsoft. That report includes, among other information, the condition of the application when the problem occurred, the operating system version, your product license ID, the IP address of your computer, AND all or part of the data from files that were open at the time of the crash.

If you select "click here" to see what is in the

data report, you will find the following: "We do not intentionally collect your files, name, address, email address, or any other form of personally identifiable information. However, the error report could contain customer-specific information such as data from open files. While this information could potentially be used to determine your identity, if present, it will not be used."

In spite of this assurance, LLNL users need to realize that the content of their files and other user information will be transmitted to Microsoft across the Internet – in some cases, the entire document will be sent.

Users should have the error report-



## CIO UPDATE

TED MICHELS

ing feature turned off

A user who receives the "error reporting" window should contact his/her system administrator to turn off this feature. Until the feature is turned off, employees are instructed to make sure they click the "Don't Send" button when this window appears.

#### Steps LLNL is taking

In the short term, LLNL is pursuing several efforts to solve this problem:

- Educating users to press the "Don't Send" button if they crash and receive the error reporting window,
- Investigating ways to block the outgoing information at the firewall,
- Updating computer images to have error reporting turned off in all Microsoft products delivered to LLNL desktops, and

• Providing necessary files and information to technical staff to turn off error reporting in software already deployed (http://snd.llnl.gov/helpdesk/watson.html).

In addition, the Systems and Network Department (SND) has temporarily moved the Office XP download to a "Tech Only" download site to ensure the software is properly configured when installed.

#### Looking ahead

This issue is not going away. In working with Microsoft to find ways to mitigate this problem, Microsoft told us that all future products and product upgrades will contain this new error reporting mechanism and that there are no plans to create a "government" version of their software that does not send this information back to Microsoft

The steps outlined above will not permanently prevent potentially sensitive information from being sent across the Internet to Microsoft. As long as it is possible for someone to install an off-the-shelf Microsoft product without turning off this feature, the threat persists. Even if LLNL were able to block the feature at the firewall, that

solution would fail if Microsoft changes the address to which the data is sent or if an employee is working on a system located outside of the firewall.

We will keep employees informed about progress on this issue. Employees should work with their systems administrators to ensure this feature is turned off. Until then, employees should click the "Don't Send" button. Additional information concerning this issue is available on the CIAC website http://www.ciac.org/ciac/ (bulleting M-005c).

Ted Michels is the principal deputy associate director for Computation and LLNL's acting chief information officer (CIO).



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### Find the fire hazards



Identify at least seven fire hazards depicted on this poster. Prizes will go to the first 150 entrants with seven correct answers. All entrants with seven correct answers will be eligible to win the grand prize. Drawing will be held in November. Go to the ES&H Website at www-r.llnl.gov/es\_and\_h/, click on "safety contest" in the "News" section. Print and fill out the form, or write your answers on a sheet of paper, along with your name and L-code. Send to Fire Safety Contest, L-088. Deadline is Nov. 2. Look for the answers in *Newsline*.

# Library Bulletin

## Widely used chemistry resources available at Library

#### **New TID resources**

The "CRC Hand- book of Chemistry and Physics," one of the world's most widely used scientific reference books, is now available online through the TID Library's Electronic Resources Page.

This handbook is a unique interactive version that allows users to customize tables, create their own reference tools, access related research and use the handbook as a centerpiece for developing an individualized information portal. The "CRC Handbook" is offered by knovel.com (http://www.knovel.com) and CRC Press.

The Library has also added electronic subscriptions to three McGraw-Hill handbooks in an electronic bundle called AccessPerry's. This bundle consists of "Perry's Chemical Engineers Handbook," "Lange's Handbook of Chemistry" and "Yaw's Chemical Properties Handbook." One search on the bundle will provide results from all three handbooks. This bundle can be accessed at http://www. knovel.com.

For more information or to arrange a demonstration, contact Isom Harrison, 4-6105, or harrison12@llnl.gov.

#### BioOne on the Web

BioOne, a unique aggregation of important biological, ecological and environmental science journals, is now on the Web.

As an innovative collaboration among scientific societies, libraries, academe and the commercial sector, BioOne is helping transform the scholarly communication process by providing (1) expanded access to scientific research results and (2) integrated, cost-effective access to thoroughly linked information from interrelated journals.

To access BioOne, go to http://www.bioone.org. From the BioOne home page, navigate through the BioOne site, including searching and retrieving full-text articles. If you are unable to retrieve full-text articles, it means there is a problem with user authentication. Contact the reference desk, 2-4922, for assistance.

## Technical Meeting Calendar



## INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

"Accretion Disk Outbursts in Close Binary Systems," by Jean-Pierre/Lasota, CNRS, Institut

d'Astrophysique de Paris. Noon, Bldg. 319, room 205 (open area, badging required). Contact: Joanna Allen, 3-0621.

#### DEFENSE TECHNOLOGIES

"High Performance Composite Firing Vessel for the Advanced Hydrodynamics Facility," by John Pastrnak. 9 a.m., Bldg. 132 auditorium (cleared area). Contact: Bret Knapp, 2-8963.

#### **R DIVISION**

PLEASE NOTE THIS MEETING HAS BEEN CAN-CELLED: "TRIZ, AFD, QRA AND TSS: New Analystical Tools for Combatting Terrorism." Contact: Bob Homsy, 2-6484.



## INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Advances in Database Technologies for Emerging Applications," by Walid Aref,

Purdue University. 10 a.m., Bldg. 451, room 1025 (uncleared area). Contacts: Ghaleb Abdulla, 3-5947, or Leslie Bills 3-8927.

#### UC DAVIS, DEPARTMENT OF APPLIED SCIENCE

"Multilayer Mirrors for Extreme Ultraviolet Wavelength Region," by Benjawan Kjornrattanawanich, DAS graduate student. 4 p.m., Bldg. 661 (Hertz Hall), room 7 (open area). Refreshments served at 3:30 p.m. for a "meet the speaker" session before seminar and at 5 p.m. after the seminar. Contact: Estelle Miller, 2-9787.



## SECURITY AWARENESS FOR EMPLOYEES

"How to Catch Terrorists," by Terry Turchie, SAFE Program. 10 a.m., Bldg. 123 auditorium. (uncleared area). All

Lab and Sandia employees and contractors and DOE personnel are invited to attend. Contact: SAFE, 2-5557.

#### CHEMISTRY & MATERIALS SCIENCE

"Ultrashort Pulse Amplification & Advanced X-Ray Sources," by Chris Barty. 10:30 a.m., Bldg. 235, room 1090 (uncleared area). Contact: Lisa Rose-Webb, 2-5609.



## UNIVERSITY RELATIONS PROGRAM OFFICE

"Cryogenic Sensor Development for High-Resolution Spectroscopy of Single Photons," by Joel Ullom, LLNL. 10:30

a.m. Bldg. 219, room 163 (open area, badging required). Brenda Foster, 3-8257.

#### MATERIALS RESEARCH INSTITUTE

"Photonic Band-gap Materials," by Michal Lipson, Cornell University. 3:30 p.m., Bldg. 219, room 163 (open area, badge required). Contact: Laura Garcia-Martinez, 0620.



#### INSTITUTE FOR GEO-PHYSICS & PLANETARY PHYSICS

"Chandra HETG Observations of Cataclysmic Variables," by

Koji Mukai, Universities Space Research Association. Noon, Bldg. 319, room 205 (open area, badging required). Contacts: Chris Mauche, 2-7017, or Joanna Allen, 3-0621.



#### INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

"Particle Transport and Abundance Anomalies in

Main Sequence, Horizontal Branch and Pop II Stars," by Georges Michaud, Universite de Montreal. Noon, Bldg. 319, room 205 (open area, badging required). Contact: Joanna Allen, 3-0621.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

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## THE HOME PAGE

## The race is on for annual Run for HOME

**By Ted Michels** 

RUN FOR HOME CHAIRMAN

Preparations for the 2001 Run for HOME, the traditional kickoff for LLNL's campaign to "Help Others More Effectively," are nearly complete. With a goal of raising \$1.3 million for local and national charities and non-profit organizations and the determination to have fun doing it, we are nearly ready.

#### The race

The race, sponsored this year by the Computation Directorate, will start at noon on Wednesday, Oct. 31 (yes, Halloween) at three locations. Site 300 begins its usual 3K race at noon; swimmers will dive into the Lab pool at 11 a.m. for their 500-meter "splash," and beside LLNL's parking lot Z-2, the starting gun will send rollerbladers on their way at noon, followed by runners at 12:02 p.m., and then walkers. A map of the race course and other details can be found at: http://www-r.llnl.gov/home2001/runforhome/runforhome.html

All race participants will receive a free Run for HOME T-shirt and lunch containing a bagel, cream cheese, an energy bar, a piece of fruit, and a bottle of water.

Winners in each race category will have \$50 donated in their name to their favorite charity.

#### The HOME Agency Fair

Representatives of charities and non-profits will be on hand in the big tent to display the many options you have to participate in the HOME campaign. You can ask questions and

decide how you can help.

#### Prizes for costumes

A panel of judges will be selecting the most eye-catching costumes. The "Circus" theme of the Run for HOME gives all of us the opportunity to do what we've all secretly wanted to do: run off and join the circus! Come as a clown or anything else and maybe you'll win a prize.

#### **Entertainment**

Magic Moments, a local band, specializing in music from the 1950s, will entertain us all. A few other entertaining surprises are in store as well. Lab entertainers, sword swallowers, fire breathers, jugglers, unicyclists, and the like, are still invited to sign up with Jenifer Continente (2-6644; continente1@llnl.gov) to entertain the crowd.

#### Lunch

For those of you who would like to eat lunch while watching the excitement and perusing the Agency Fair, our cafeteria food service will be selling box lunches, Caesar salads, cookies, chips, and sodas. Egg rolls will also be on sale. So, you don't have to miss lunch to join in the fun.

#### Do some good, bring some cash

While you are having fun, you can stay in the circus mood and contribute to your favorite charity. Popcorn, cotton candy, and "Vintage" HOME Campaign T-shirts from previous years will be

sold for \$1! Toss around a few dollar bills that will go directly to help others.

HOME CAMPAIGN

#### Parking restrictions

To make room for the event and set up the day before, parking lot Z-1 will be closed on both Tuesday and Wednesday. In its place, the Sandia parking lot will be available and Sandia's pedestrian entrance will be staffed on those two days (7:30 to 9 a.m. and 3:30 to 6 p.m. on Tuesday and Wednesday from 7:30 a.m. to 6 p.m.) so employees may use it as an alternative to lot Z-1. In addition, the southwest pedestrian gate near Bldg. 111 will be staffed from 11:30 a.m. to 2:30 p.m. on Wednesday only. Employees are asked to plan ahead and make sure you do not leave your car in lot Z-1 overnight on Monday so the lot will be clear to set up for the event.

Employees who have parked in lots Z-2 and Z-3 on the morning of the race will not be able to get out of the lot during the race (from about 11 a.m. until about 2:30 p.m. Wednesday). Anyone who anticipates needing to leave the Lab during that time should park in the Sandia lot.

#### The goal

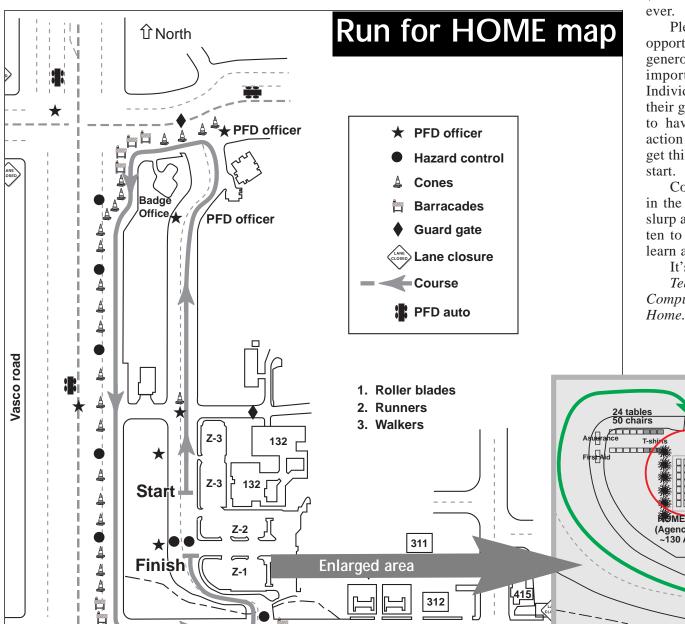
This year, the needs of our local charities are likely to be greater than ever. Some of our agencies are counting on a successful local campaign to meet some urgent needs. With charitable resources wearing thin across the country, our \$1.3 million dollar goal is more important than ever.

Please take advantage of this wonderful opportunity to make a difference. Help set a generous, fun-loving tone for this campaign, so important to the life of our community. Individuals can always help their neighbors with their generosity; but this is a unique opportunity to have the huge impact that only collective action by thousands of people can have. Let's get this year's HOME campaign off to a rousing start.

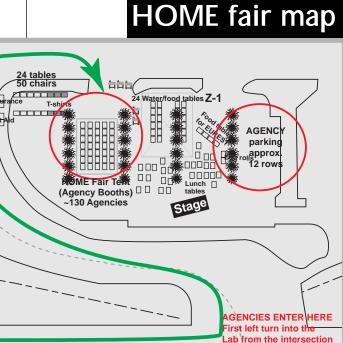
Come and race; come and watch; have lunch in the sunshine; eat cotton candy and popcorn, slurp a soda; bring a friend; wear a costume; listen to music; and visit the Agency Fair tent to learn about the charities you can help.

It's going to be fun. See you there.

Ted Michels is the principal deputy AD for Computation and the chairperson of the Run for



East Ave.



of Vasco and East Ave.



## CLASSIFIED ADS

## See complete classified ad listings at https://www-ais.llnl.gov/newsline/ads/

#### **A**UTOMOBILES

1996 - Blazer S-10 4Dr 4WD 67K miles power windows,doors, mirrors, overhead console, cloth seats, two tone paint, very good condition \$11,500 phg. 925-606-0755

1996 - Chevy Cheyenne, Xcab, Shtbd, 85k miles, V6, AT, AC, Cruise Cntrl, ABS, Good MPG, \$10,500 925-454-8918

1989 - Acura Integra, 4 door, grey, air, power windows, 5 speed, original owner, all maintenance records, lots of miles but it runs and looks great, \$2,600 925-484-4099

1992 - Saturn SL2, 182K Freeway Miles, 5 Speed, Newer Tires, Well Maintained, Good Condition, Runs Great. \$2,500/BO 209-823-5435

1973 - VW Super Beetle. Good Cond. \$2000 BUG.jpg 925-447-8557

1991 - Exployer, orig.own, complete maint.records, 119Kmi.excellant cond., \$5300.shop & compare Call evenings. 925-447-3780

1992 - FORD F250. Grt cond! New tires/wheels, paint, campershell, bedliner & carpeted storage kit, brakes & more! \$6,900/obo. 209-832-2790

1972 - 2-Bugs:one has brand new motor and crunched front fender. Other has great body,interior and motor, trans needs work. \$2200. obo. 925-

1993 - Ford Taurus LX wagon, 3.8L, good condition, power everything, leather int, 77K miles. \$4300/BO. 209-835-8976

1991 - Maxima- 4 dr, pwr steering, windows, locks, CC. automatic. 112K miles, eng. well maint. clear coat peeling, runs great 3500.00 OBO. 925-

1988 - - ACURA LEGEND, 4dr, 2.7 V6, Grey, AT, AC, all power, moon roof, AM/FM/Cassette, indash CD, Cruise, almost new tires, good condition \$3,000 925-292-7799

1992 - Honda Civic LX Sedan. 109K, reliable, runs great, CD changer, like new Interior, 5 speed. \$3000 Call with any other questions. 925-371-

1984 - Mercedes 190E. Gold exterior, tan leather interior with sun roof. 132,000 miles. \$2,300.

1994 - Toyota Camry LE Sedan - gold, 4-cyl 2.2L, AT, AC, power everything, AM/FM CD, new timing belt, 131K miles, excellent condition; \$5900 925-

1988 - Lincoln Town Car. Blue with grey leather int. New tires, clean in and out, very reliable. \$2,250.00 OBO, 18-20 MPG 925-516-9238

1993 - Eagle Vision, 4Dr sedan, full size (seats 5) with large trunk, All power options, New tires/wheels, \$3500/obo 925-837-6015

1930 - Model A project car excellant condition, all parts. 209-522-4427

2000 - TRUCK Ford F250 2WD Power Stroke Diesel 18k mi 28k OBO. 4-6170 925-437-1737

1978 - BMW, 530i.\$ 2350 OBO.One owner. Low Mileage.Looking great. Excelent condition.Well cared for.Ready for test ride.Smog OK. 925-838-9038

#### AUTOMOBILE ACCESSORIES

Bumper, Rear, TJ Wrangler, Stock, Steel with End Caps and Hardware, Excl. Cond. \$20 obo 925-443-3970

8FT camper shell W/carpet kit, fits Ford F-150 \$75.00.or B/O 925-455-5070

Rims and tires from 2001 Dodge 3/4 ton truck. Factory aluminum wheels with Michelin tires, 40K

miles. \$300.00 925-516-5636

5 Bridgestone Dueler A/T tires P235/75/R15 less than 5000 miles.\$250.00 510-865-6872

(4) Brand New Tires, LT265/75R16E BSW & Premium Aluminum Wheels, mounted and balanced for Ford Super Duty Pickup. \$900 or B/O 925-455-4041

\$50/obo 925-443-5565

Various size and tires/call for all info. 925-735-6002

#### BICYCLES

Fuji Mountain Bike. Used 3 times. Disc brakes, 24 speed, alum. frame, susp. forks. Excellent! New \$450 sell \$300 obo 925-679-8610

#### BOATS

SAILBOAT 11 ft Sunfish style sailboat in excellent condition with brand new sail. \$350. 925-516-9510

Minn Kota Turbo 65 transom mount trolling motor. 36 inch shaft, 36 lbs of thrust. Excellent condition. \$75.00 209-983-8932

89 Supra 20 Ft Tournament Ski Boat. 240 Hp Ford Pcm, Openbow, Bimini Top,Skylon,Cd,Blue/White Colors Excellent Condition (Garaged) \$12,700 925-754-6390

95 Bluewater Mirage 20 ft.Ski Boat, 4.3 Merc I/O, 209 hrs. Custom stero, transom shower, depth finder, tandem trailer, Exellent Cond. \$11,500 or B/O 925-455-4041

95 Ski Sanger Competition Ski Boat. Low hours,

looks and runs great. New Skylon Boom and CD Stereo. Always kept garaged. Must see to appreciate. 209-632-4568

#### **ELECTRONIC EQUIPMENT**

HP black inkjet cartridge 51626A. Large capacity (40 ml). Brand new, package never opened. Retail \$30. Asking \$15. 925-846-3653

Pair of JBL 100L speakers. Walnut. Make offer. 925-634-0649

CD writer, IOMEGA Predator new, cost \$250 yours for \$150, USB or SCSI, MAC or PC 925-443-7841

Computer, Performa 6400 works great \$150 o.b.o

Macintosh Centris 650 with 400 Mb Hd, 24 Mb RAM, 17 inch Color Monitor and a LaserWriter NTR printer. Best Offer. 925-606-7889

Monitors, battery backup/Brother word Process., etc., etc. call 925-735-6002

#### **GIVEAWAY**

Old cabover camper, you haul. 925-373-8297

Sofa Bed -- brown/tan pattern; no mattress. Stockton, 209-957-2959

#### HOUSEHOLD

Folding banquet table (5' by 30") \$30. Wood screen door 1948. (80' tall by 36" wide.) \$35. 447-0428

Designer convertible sofa. Custom fabric. Excellent condition. Cost \$1600 new; sell for \$300. 925-

Hanging Ceiling Lamp. Octagon, beveled glass, antique-brass frame. Nearly new condition. \$35. 925-484-0475

Baby changing table, 2 yrs. old, excellant condition (Pali brand), natural color. Has drawer & shelves. Bought new for \$240, selling for \$140. 925-606-0825

Pellet Stove Elan, Orig. \$2,300 asking \$1,100 Very good cond. Bay door,Free standing 925-443-

Drapes, cream open weave, levolers, oak traverse rods w/ hardware to fit 9ft./7in. and 6ft. windows. xlnt. condt. \$200 925-426-1438

Swivel-Rocker with otterman. Clean. Excellent condition. \$25.00 510-582-2938

Washer & Elec. Dryer, matching Whirlpool, white, both working, both for \$150. 925-447-6221

Lenox Village Spice Set includes 24 porcelain Victorian homes with original custom made hard-wood rack in excellent condition. \$300.00 925-447-7160

Office desk, grey steel,  $30 \times 60 \times 29$  inches high, one file drawer, \$90. 925-454-9291

Gas Dryer, GE, good condition - \$25. 15 cu ft upright freezer, runs well, good for the garage - \$25. 925-606-0850

Living room sofa and coordinated armchair, green/gold, \$225; 3 coordinated Indochinese rugs \$200. All like new. 925-447-9969

Black Sofa and Love seat, great cond. Both for \$175.00 OBO Call after 5:00 on week days, anytime wknds. 925-443-3960

Dryers, gas and electric, reconditioned, Kenmore almond, large capacity, \$95 925-443-5565

Refrig. 26 cu. ft ice & water in door almond color aprox. 8yrs.old \$250 o.b.o 925-933-5502

Craftsman tools w/chests, complete 1/4 to 3/4 drive sets, screwdrivers, pliers, electronic, plus too many to mention, new condition. \$1300 obo 209-847-1231

FIREWOOD - Hardwood/Pine, fireplace size, well seasoned, delievered if necessary 925-634-2307

Upright Freezer, Borg-Warner, about 18cu. ft.\$50 209-239-5625

SoftHeat 2 person Sauna. Cedar wood, completely portable, digital temp/time control. New Cond. Paid \$3700.00. \$2000.00 925-371-0318

Simmons Maxipedic queen size mattress & box springs. Great condition, rarely used. \$200 or b/o Call after 6:30 p.m. 925-455-6517

Bar: brown; half circle with liquor cabinet and shelves; bartenders bar stool included. \$150/obo. 209.763.2888

Computer desk, real oak, compact type (perfect for dorm or small room), new condition, at Costco now for \$199.00. Asking \$75.00 firm. 925-449-4796

#### Lost & Found

Found, bracelet in front of B141, CRC area. 2-8121 or 209-954-9853

#### MISCELLANEOUS

RUMMAGE SALE at Almond Ave. School., 10/20, 8:00-2:00. 1401 Almond Ave., Livermore. All proceeds go towards the purchase of a classroom. 925-454-8518

Torque wrench (unused), induction tune-up dwell meter, induction timing light. Make offer 925-292-7799

Childrens play table. Hand made from wood & painted. Chairs in shape of giraffe, table base in

shape of elephants, must see. \$80. 925-606-0825 CALLA LILLIES 6 for \$10 925-447-6192

10 piece Luggage - Protocol Floral Tapestry all for \$150.00 call for more info 925-449-6070

Garage sale: 618 Salem Court, Livermore, Saturday, Oct. 27th, 9am to 3 pm. 925-447-3497

Football Tix: \$50 each, two available for 11/4 SF v. Det, 11/11 SF v. NO, 11/18 Oak v. SD, 12/2 Oak v. Ariz & SF v. Bills, 12/22 SF v. Phil. 510-465-3058

Yard and Estate Sale Oct. 26 & 27, 8am to 3pm Furniture, appliances, clothes and misc. items 955 South L Street, Livermore; 925-455-6510 Copper Tubing - 1/2in. x 60ft. roll. \$25.00. 925-

Gas powered string trimmer, Ryan, 2 cycle, 15 inch

Chemistry reference series: Organic Reactions, Volumes 1 to 23, ED Rodger Adams, \$200. 925-443-4292

cut, \$25, 925-455-0836

New barber set, Smith Corona word processing electric typewriter, Sears heavyduty sander, scroll saw, or make offers 925-292-7799

3 lrg. area rugs, multi colored, nice. \$25.00 ea. 925-443-3960

Dayton 1/8 hp hoist, model 4z358, 300 lb elec hoist with 10ft chain, reg 650.00, \$500.00, please call between 3 and 6pm 925-449-0725

Two Stage Cutting Torch Set. New, Still In Box \$140 925-606-0480

Wheelchair, Quickie GP, fixed frame, custom hubs and handrails. \$400. Excellent condition. 925-449-4494

Rototiller 5hp \$100, Mower \$70, Sandblaster \$40, Compress 220v, Arc welder \$100 209-606-6445

60ft crank up pole tower.250.00. invertor 800 watt w/remote 150.00 marine battery charger 25.00 ham radio antenna 220 freq 50.00 willing to deal 925-634-0822

Oak Season Wood \$200 a cord will deliver 4-6170 925-437-1737

#### MOTORCYCLES

2001 - Harley Davidson Heritage Soft-tail classic, 10K miles, white, looks brand new, \$21,000 209-239-0148

1970 - Honda Trail 90, good running condition, great for the outdoors. \$800.00 OBO. 209-836-2627

1985 - Kawasaki ZX550-A2 GPz. \$1850 OBO. One owner. Very low mileage. Super excelent condition. Just serviced. Street bike. Lots of extras. 925-838-9038

### MUSIC INSTRUMENTS

PIANO, Chickering & Sons, oak, upright with bench \$950/OBO 209-835-7149

Suzuki violin, 1/4 size, Wolf violin headrest (1/2 size), both like new. Make offer 925-292-7799

Saxophone, Alto, Conn, (Student sax), \$500, 925-556-3444

#### PETS & SUPPLIES

Western saddle. 15 inch, \$300. Insulated saddle bags, \$50. Miscellaneous tack. Call 925-516-

Blue And Gold Macaw,2years Old,Beautiful Colors, Tame, Healthy,\$600/Obo. 925-449-8159

Keyon sand boas, Babies, only get about 18in long \$25 209-606-6445

Cockatiels, 2-3 months old. Greys, Lutinos & Pearls. Friendly & tame \$35.00 each. Eves-925-606-7128

Blue Front Amazon, hand tame, cage plus accessories. \$500 925-294-8632

Dachshund male, about one year old. Free to a good home. Moving, unable to take with us. 209-823-7696

Pomerian Puppies Two males \$400.00 with AKC papers. 209-951-1934 leave message on machine. 209-951-1934

Chinchilla + cage and accessories. Cuddly pet with nice personality. \$35 209-239-5685

#### RECREATION EQUIPMENT

Versa Climber CL 108 H Ladder Climber machine w/ computer. Excellent Cond. \$500 510-537-2079

Portable basketball backboard - good condition. \$75. 925-485-1988 Adjustable RESISTANCE STEPPER,Tunturi C419,

w/timer etc,vgc,\$75bo,after 5:00 p.m. 209-835-4138

SNOWBOARD Hazard brand, size 51, red with bindings. Excellent condition \$200/obo 4-2529 209-599-5071

209-599-5071

Health Rider, seldom used. Excellent condition.

Technical Diving Gear - Full face Interspiro AGA, Underwater Video with microphone and lights, Dry Suit, Navigation Board, BCDs 209-599-1059

\$50.00 925-373-1964

SNOWBOARD-K2-Zepplin, size143, with rossig-

nol bindings, great condition,3 yrs old used 3 times.\$200.00/obo. 925-484-5260

Orig. boxed 70s RC kits. Pearce Paragon 3m glider; German Mittelstik (engine N/A). Exc. cond. \$75ea. 2/\$140. Steve. 209-239-2154

Nordic Trak Used VERY little. Paid \$500 asking \$175 After 6:00 209-239-5778

Portable pool. Large 15 x 22 x 4 ft including filter/pump & pool sweep. 2 months old. \$5000 new \$2000 u-haul. 209-239-0663

#### RIDESHARING

Express your commute, call 2-RIDE for more information or visit http://www-r.IInl.gov/tsmp

Cupertino/San Jose - Looking for a vanpool/car-pool 8:00 - 4:45. Possible flexibilty in hrs. 408-787-9992, ext. 4-4527

Ceres/Modesto - 14 psgr Enterprise deluxe van, 7:00-3:30, \$120/month 209-537-0229, ext. 3-6631

Danville - Near Camino Tassajara & Crow Canyon - 2 drivers/riders seeking additional member to carpool from south Danville, 8:00-4:45. 925-736-9441, ext. 2-1039

Orinda/Lafayette/Moraga - Lamorinda carpool looking for 4th member, lab hours 8:15am-5pm 925-253-0498, ext. 2-9823

Danville - Diablo Rd./Front St. area needs driver/rider to complete four-person carpool. 8:15-5:00. 925-831-1569, ext. 2-9858

#### SERVICES

Roofing, 28 yrs experience, fully insured, free estimates 925-454-9200

Licenced adult baby sitter, available in Livermore area only. Responsible and reliable. Please call for details. 925-449-3776

Time to paint before the holidays. Excellent workmanship. Detailed and quality work. 17 years experience. 510-537-7222

Pain in shoulders, lowerback, and stress with job or home. Call and make an appointment for a massage. Gift certificates available AMTA/Licensed 209-962-5468

Exterior House Painting - Over 15 yrs experience, free estimates. 925-447-5132

Need your errands run. We will do your shop

ping, drop offs, pick ups, etc. 209-ó09-7737 CoDA Codependents Anonymous Meets Tuesday Noon B571/R2016. Support better relationships! Info call 925-447-7070

### SHARED HOUSING

Livermore - - Room available now in 3BR/2BA home, private bath, simple furnishings available, full privileges, N/S N/P; \$500 + Dep + parital utilities. 925-455-5362

Dublin - Need roomate to share 3bd. 2ba. apartment w/ vaulted ceilings. \$500/mo.+ 1/3 utilities. Complex is very nice with pool, B-Ball, gym, & Jacuzzl. 925-829-9601

Livermore - room/priv. ba. in 3Bd/2Ba quiet home, house privileges, 5 mins from Lab, \$600/mo + deposit 925-294-5977

Livermore - 1 mile from LLNL, Share 3BD/2BA house with one person. Bedroom, Own Living Area, Private Bath, Wash/Dry, NS/NP, \$775.00 Month + Dp and 1/2 utils 925-373-1166

Discovery Bay - Room for rent in private home

## Sitchen and laundry priviledges. \$550/mo plus 1/3 utilities 925-634-0560 TO TRADE

Looking to exchange painting services for used sports car or small truck, 1988 or newer in good working condition for college student. 925-447-

### TRUCKS & TRAILERS

1978 Starcraft Tent Trailor. Great condition.

1979 - Chevy Luv pick-up, 4 cyl, manual trans, recent new ext. paint, runs good, original owner, see it in the LLNL lot \$2000 510-538-

1995 - Dodge Ram, 1/2 ton, 4x4, white, auto, V8, AC, cruise, CD, tow package w/ elec. brake control, shell and bed liner, 160K miles, \$11.500 obo 209-239-0148

1995 - Toyota, T100 4x4, too many extras to list, great condition, sharp looking, green, will not last. 13,000 OBO. 510-581-1863

1991 - Chevy, Z71, short bed, 4x4, 350, auto,pwr windows & doors, tilt, air, cc, camper shell, CD player, \$9,200 OBO. 209-892-6720

1990 - GMC 2500 X-CAB SLE with fiberglass shell. New GM motor and radiator.PS,PW,PL,TW,CC,AC,AM/FM Cass. Many new parts. 188,000 miles runs great.

1995 - Chevy Suburban 1500 Sport Utility, Loaded, 4WD, 95K mi. \$15.5k. CLEAN MUST SEE!!! 925-443-5411

1997 - GMC 1500 Pkup Club Coupe, Teal, 31K mi, hrd Tonneau Cvr, ABS, tow pkg, spec wheels, chrome pipes, CD, airbags, excl condition. 925-449-3478 1991 - Ford Bronco. Eddie Bauer. 85k miles. Excellent Condition. Immaculate. Must see! \$7,300 obo 925-516-3768

1986 - Chevy Suburban, 3/4 ton, 4x4, auto, 6.2 dsel, 200K, excellent cond., \$5900. 925-866-1776

1997 - Jayco Eagle 31ft. 12ft. Slide out very nice trailer. 13k obo. 209-815-0385

trailer. 13k obo. 209-815-0385 1978 - Starcraft tent trailer, extras, call for price

#### VACATION RENTALS

and all info. 925-735-6002

Puerta Vallarta-Beautiful 2 bdrm condo overlooking the pacific at Costa Vida Resort,12/27/01 thru 01/03/02 or 01/03/02 thru 01/10/02.5800 per wk. 209-545-1308

SQUAW VALLEY, LAKE TAHOE - 1 bedroom

timeshare condo available Thanksgiving week (11/17-25)at Olympic Village Inn. Sleeps 4, fully furnished, ski slopes. Reasonable rates. 925-292-7799

Twain Harte - Fully furnished.2bdr 2full bath.Cable TV,VCR, dishwasher,washer,dryer, and more. Close to Pinecrest Lake,Dodge Ridge ski area. \$150wknd \$300wk. 925-443-2808

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath

Chalet, nicely furnished,all amenities, Park with Lake, tennis etc. Off-season Rates! Reserve Holidays/Skiing Now! 209-599-4644 Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view,

oceanside pool, and BBOs, Low LLNL rates for

year-round reservations. 925-449-0761 Maui-Wailea Ekahi, 1 bdrm, 2 ba tropical beach resort. Available 12/1-9. Also large cabin in

Arnold, CA. 510-582-9262

Maui, Hawaii - Oceanfront, luxury condo with all amenities. Beautiful view, tennis courts, large pool, BBQ, workout room, putting green. Low LLNL rates. 925-846-8405

#### WANTED

WANTED:older western mare to lease or possibly purchase. Must be suitable for 7 yr old to show walk/jog in Arabian Shows. References available. 209-847-1231

Wanted: Computer monitor(PC), 15 inches or larger in good working condition. 925-600-7328

Will the person who submitted an ad to sell a

please call me. Your ad phone number was not correct. 925-245-1414

Need SCUBA gear for the Sheriffs voluntary Underwater Search and Rescue Team. J-valves/lanks, horse collars, you name it. Donation only please. 510-582-8506

tonneau cover for a Dodge Dakota on 10/05/01

ROTO-TILLER with rear mounted tines, must be in good condition, for use in small garden. Will pay reasonable price. 925-456-7972

Inversion Table, used for hanging inverted to

apply traction to back. Call aft 6pm please, leave mesg. 209-832-2056 Wrought Iron Bakers Rack and patio/bistro

table. 209-462-5932

TV rotor with or without antenna, also wanted hunting property in Livermore area 925-447-4961

Used, Built-In, MINI DISHWASHER WANTED. Same features as full sized, but only 18 inches wide. [Cannot use your full sized - sorry]. 408-261-1228

Three-quarter ton truck for towing, extended cab preferred. \$10K approx. 925-443-4562

Wanted: old wind up record player and parts. I am also interested in 78 and 45 records 925-

larger, good working condition. 925-600-7328 Fimo clay artist seeking pasta machines for art projects. Need two of them. Recycle your unused machine! 925-447-4763

Computer Monitor(PC), 15 inch screen size or

amps, tuners, tube equipment, old electronics wanted. Working or not. 925-443-2954

Complete LOFT BED setup with bed, desk, drawers, and bookshelf (mattress not needed).

Reasonable price. 925-449-3499
Iris bulbs, any color any amount. 925-447-4797
I am looking for books or magazines with infor-

925-706-7444

Wanted: broken, unusable or old surfboards or boogle boards 925-443-4292

mation on model sailboat building/racing.

Desk top transcriber for full size cassettes with foot controls & head phones/jack. 925-454-1526

Toddler toys, crib, youth bed, size 3 or 4 roller blades, halloween costume for large 6 year old

Wanted: SHARKS tickets! Regular season, weekend or night games. 510-635-2734

boy. 925-455-0164

Wanted: NuSkin distributor to buy Celltrex from, 510-530-1884

Bike Trailer - that holds two children, good condition, resonable price. 925-837-0863

Need Patio chairs & table for reasonable price

or giveaway. 925-292-5051

Due to space limitations, Newsline may withhold ads that have already run. They will still appear on the Web.

Friday, October 26, 2001 Newsline 7

#### **SMART PROBE**

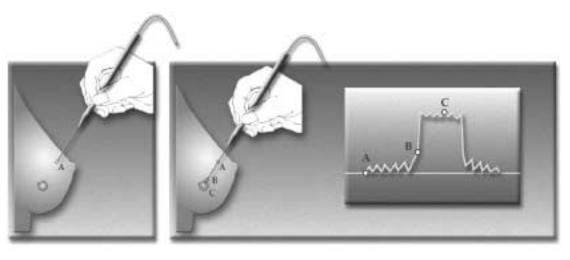
Continued from page 1

BioLuminate "Smart Probe," smaller than the needle used in routine blood tests, is inserted into breast tissue after an initial screening indicates an area of concern. The probe looks for multiple known indicators of breast cancer, instantaneously providing physicians with information they can use to determine whether more invasive and costly tests are necessary. Unlike a standard biopsy, the results of the "Smart Probe" procedure are immediately available to patients.

Last year, BioLuminate obtained a license to develop, produce and market the early breast cancer detection tool based on technology originally developed by NASA researchers.

The Lab took the NASA technology and developed it further by miniaturizing and making it applicable to be used on patients. BioLuminate hopes to be able to produce a real-time-measurement instrument that will reduce the need for unnecessary surgery.

"It's a tremendous accomplishment to see this key technology finally being tested on patients,"



The 'Smart Probe' makes continuous measurements as it moves from the surface of the breast (A) to the center of the tumor (C). The graph illustrates what the analyzed signal might look like for the case of a malignant lesion.

said John Marion, the Laboratory's principle investigator for the Smart Probe. "With BioLuminate, we have taken the multi-sensor NASA concept, selected new optical sensor technology and packaged it into a thin needle-sized instrument that can pinpoint whether a tumor in the breast is cancerous or benign."

Sensors on the tip of the probe measure optical, electrical and chemical properties that are known to differ between healthy and cancerous tissues. The "Smart Probe's" sensors begin gathering information the moment the needle is inserted into tissue. Computer software will eventually compare the real-time measurements to a set of

known, archived parameters that indicate the presence or absence of cancer. The results can then be displayed instantly on a computer screen.

"The BioLuminate Needle offers the potential to improve localization of cancer tissue, eliminate removal of tissue and the associated complications, and most important, get more accurate information for diagnosis," said Lydia Howell, director of Cytology at the UC Davis Medical Center and professor of patholo-

gy. "The information obtained by the needle also has the potential to be useful in predicting how a cancer may behave. The needle may be able to not only distinguish benign lumps from cancerous lumps, but may also be able to distinguish which cancers are more aggressive so that the patient can receive stronger therapies."

On Monday and Tuesday, BioLuminate's "Smart Probe" will be showcased at the "Medtech Insight" 'IN3 East Fall 2001 conference in New York City. At approximately the same time, human testing will begin at Davis. UCSF is expected to begin its study later this year.

#### **HOME**

Continued from page 1

"With the crisis that is going on, now is an appropriate time to think about giving and helping others," explained Wayne Shotts, the associate director for NAI. "There are a great number of folks who need help out there. HOME is an excellent way to reach out"

Each November, the Lab stages its annual campaign to "Help Others More Effectively" by raising money for a long list of employee-chosen agencies and umbrella groups. Employees may also select their own agencies through a write-in campaign, making any school, church or nonprofit entity with 501(c)3 tax status eligible to benefit from HOME.

Employees may contribute through a one-time donation, payroll deduction or appreciated assets. However, donations made to the Sept. 11-related funds will be through one-time contribution only.

This year's goal is \$1.3 million dollars, an slight increase from last year's tally of \$1.26 million.

Werne and Shotts expect another successful campaign — for the past three years, the Lab has eclipsed the million-dollar mark — but they also expect a few challenges. "But meeting those challenges is worth the effort for the benefits we can make in the daily lives of people who are our neighbors," Werne said.

"Our employees realize how fortunate they are and have always had an awareness of others' needs," said Shotts. Although employees are showing interest in contributing to Sept. 11 funds, Shotts emphasized the growing needs in the local community.

Over the years, many of the employee-chosen agencies have come to rely on HOME Campaign dollars. These are agencies with small operating budgets that cannot afford to advertise or market their needs.

"Remember that the focus of HOME has always been the local community," Shotts said. "People need to realize that the attacks of Sept. 11 are not just focused on the East Coast. They've had a domino effect on charities in our own community, which were already stressed."

As an example Shotts cited charities that provide counseling, grief support and other crisis services. Many of these agencies found their resources already tested due to rising unemployment in the area. The Sept. 11 attacks are adding to that stress, he said.

So while employees are encouraged to contribute to the Sept. 11 funds, both Werne and Shotts remind people to remember their own community as well. "Just because many of us live in affluent communities, it doesn't mean the needs are not there," said Werne.

A good starting point for learning more about the agencies that represent those needs is through the Agency Fair, which begins at 11:30 a.m. Wednesday, Oct. 31, in the Z-1 and Z-2 parking lots (near Bldg. 111). During the fair, nonprofit organizations that stand to benefit from HOME set up informational booths on the work they do. Lab employees, who volunteer their time to assist the various agencies, staff many of these booths.

The HOME Campaign began 27 years ago as a way to assist Tri-Valley agencies that were, at that time, largely unsupported by the United Way. Over the

years, the campaign has become a major fund-raiser for many of the employee-chosen agencies listed in the HOME Campaign packet. Groups such as Shepherd's Gate, Tri-Valley Haven for Women and Tri-Valley Animal Rescue have come to rely on the HOME Campaign for a healthy percentage of their annual budget. Even the United Way's Bay Area chapter cites the Lab as a top "corporate" contributor.

This year, the Lab received the Tri-Valley Community Champion Award for its "exemplary record of employee volunteering and fund-raising," which includes the HOME Campaign. The Tri-Valley Community Foundation, Shaklee Corporation and Tri-Valley Community Television presented the award.

HOME Campaign packets will be distributed to employees the week of Oct. 29. The campaign will close Dec. 7. Johnson Controls, the Lab's contractor for supplemental labor, will once again provide matching funds for every dollar contributed by its workforce.

As an incentive to participate in the campaign, NAI will offer a series of weekly drawings, in which employees who return their contribution packets will become eligible for various prizes – from restaurant certificates to wine country tours.

The incentive drawings will be held Nov. 7, 14, 21 and 28 and Dec. 5. The deadlines for turning in packets to become eligible for the drawings are Nov. 2, 9, 16, 21 and 30.

For more information about the HOME Campaign, see the Website at http://www-r.llnl.gov/home2001/

#### SAFE

Continued from page 1

Terrorists."

The talk is scheduled for 10 a.m. in the Bldg. 123 auditorium. All LLNL and Sandia employees and contractors and DOE personnel are invited. The talk will be unclassified.

While Turchie has many tales of how domestic and international terrorists have been foiled, perhaps the highlight of his 29 years with the FBI was his role as head of the task force that brought infamous "Unabomber" Theodore Kaczynski to justice.

In his role within the FBI's Counterterrorism Division, Turchie had overall responsibility for management of the FBI's counterterrorism program, which included coordinating the pursuit of international terrorists with the FBI's 56 field offices. He accompanied former FBI Director Louis Freeh to Turkey, India, and Central Asian republics of the former Soviet Union to meet with high government officials on counterterrorism and counterintelligence matters.

Turchie helped to coordinate counterterrorism planning for the Republican and Democratic National Conventions, the 2001 Presidential Inauguration, and the 2002 Winter Olympic Games in Salt Lake City.

He also had primary responsibility for the FBI's Rapid Deployment Teams in extraterritorial matters and overall management of the Domestic and International Terrorism programs, National Domestic Preparedness Office, FBI Weapons of Mass Destruction (WMD) efforts, and National Infrastructure Protection Center (NIPC).

Before Turchie went to FBI Headquarters in May 2000, he was associate special agent in charge

of the FBI's San Francisco Field Division Office. He managed all of the bureau's criminal, foreign counterintelligence, and counterterrorism cases in the Northern California area.

In June 2001 Turchie retired from the FBI to take a position as SAFE Program manager.

In this presentation, Turchie will tell of the many terrorist plots that have been foiled, how the national laboratories have helped to foil these plots, and what needs to be done now. The talk also will cover precautions you can take when traveling at home and abroad, and what you can do to bring terrorists to justice.

The program will be broadcast live on Laboratory Channel 2, and will be rebroadcast on Thursday, Nov. 1, at 10 a.m., 2 and 4 p.m. Videotapes will be available Tuesday, Nov. 6, from the SAFE Office, 2-5557, and the SNL/CA Counterintelligence Office, 4-2493.

8 Newsline Friday, October 26, 2001



## The back page

#### **NIF**

Continued from page 1

construction contractors. Other portions of the facility were accepted earlier and the activation of the Optics Assembly Building as a production facility, as well as the installation of the Beampath Infrastructure System (BIS) are proceeding rapidly.

#### Key players

The core conventional facilities (CF) team was assembled in early 1996. Allen Levy, recently retired, was the NIF deputy project manager and provided senior oversight. The team included Roberts, NIF Conventional Facilities Design Manager Paul Kempel, and NIF Procurement (Jane Randolph, Lori Sorenson and Bob Callaghan).

The design manager since January 1996, Kempel's job was the facility design and engineering interface between the users (Lab scientists, physicists, engineers, technicians, and operators), the architectural/engineering firms, and the construction management team. At times, Kempel was collecting, explaining and interpreting the criteria for those who were turning designs into a reality. At other times, Kempel was clarifying design requirements and obtaining consensus among all stakeholders, a major challenge on a project of this complexity and magnitude.

Having been the design manager on the National Atmospheric Release Advisory Center, the High Explosives Applications Facility, the West Gate Badge Office, and many other projects at the Lab since 1981, Kempel said: "NIF is the most integrated project that's ever happened at the Lab. Within the Lab, many entities were involved: NIF, Mechanical Engineering, Electrical Engineering, Chemistry, Computation, Plant Engineering, Weapons, Fire Safety, Security, Maintenance. And outside the Lab, many partnerships were formed with industry specialists."

The team selected industry partners Parsons Infrastructure and Technology of Pasadena, and AC Martin of Los Angeles for architectural and engineering services, and Sverdrup Facilities Inc. of St. Louis (now Jacobs of Pasadena) for construction management services. The Sverdrup construction manager, Mike Smith, was key in the selection of a fast-track approach to the construction of the facility, planning the sequence in which NIF was assembled.

Smith also spent a lot of time solving problems. In November 1997, El Nino dumped two inches of rain in two hours, flooding the NIF site. "We were three days away from pouring the 40-foot-wide, 120-foot long, six-foot-deep foundation for the retaining wall between the target building and the switchyard. The rains soaked the earth so much that the frames for the retaining wall sank six inches. They tried a couple of quick fixes and finally realized they had to disassemble it, reassemble it and pour the concrete. "When they finally poured that retaining wall, it was one of the happiest days of my life," Smith said.

But a month later, Smith received one of the worst birthday presents a construction manager could receive. On Dec. 15, they uncovered bones — very old bones — at the NIF site. "We went from a 245 excavator with a two-yard bucket pulling out 60 to 80 cubic yards an hour to paleontologists down there with paint brushes dusting the dirt off the bones. It almost killed me. Even though I could appreciate that they were very excited about this find (the lower jawbone of a mammoth), all I could think was, 'Get it over with, get on with it, dig the bones up and let's get on with the project.'"

#### Many industrial partners and vendors

Most of the work to build and commission the facility was divided into seven "Construction Subcontract Packages (CSP)." Six of the seven fast-track construction packages were awarded in 1997, with construction beginning in March 1997. These contracts included the following:

- Red Top Electric Company of Hayward (\$689,000) did the site preparation, electrical underground ductbank relocation and parking lots.
- Teichert Construction of Stockton, (\$ 3.7 million) excavated the site, preparing the ground for the building to come.
  - Walsh Pacific Construction of Pleasanton, (\$7.3

#### **FACILITY**

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• Expended more than 1.7 million hours of craft labor.

NIF also presented its creators with some very unusual design requirements:

- Continuously poured a concrete slab in the laser bay (three-feet-thick by 80-feet-wide and 420-feetlong) and target building (six-feet thick by 351-feetwide and 106-feet-long). This serves as the "optical bench" for the laser. The laser requires such a foundation in order to minimize vibration.
- Limit vibration due to wind. Outside winds can vibrate through the two-foot-thick, outer walls enough to upset the laser alignment, so they built an inner steel structure inside the target bay and switchyard. The steel structure is anchored to the wall to get the combined stiffness. NIF laser alignment specifications should be met for wind loads less than 40 mph.
- Maintain temperature stability of 68 degrees Fahrenheit, plus or minus half a degree, within the whole facility (laser and target area building), from one end to the other, one height to the other. In the course of a day, the movement of the sun can cause an unacceptable temperature variance in a building, so NIF has eight-inch-thick Styrofoam covering the two-foot-thick concrete on the outside of the Target Area Building. Over

the Styrofoam is a stucco-looking finish. The laser bays have insulated return air plenumns at all the perimeter walls. Air flows in between the outer and inner walls of the plenumn that prevents effects from outside temperature variations. This allows the precise temperature control required in the facility.

- Minimize vibration and acoustical noise. Very large air handler units occupy two floors above Capacitor Bays 2 and 3. These units must not transmit any vibration to the laser system because that would hamper laser alignment. All units were balanced at the manufacturers' factories, tested for both vibration and acoustics, then tested again when installed in NIF. Even the acoustical noise from the large air flow through these units could impact the laser alignment because the acoustical noise converts to vibration. Large silencers were installed in all the units to reduce the acoustical noise to an acceptable level. This technology existed, but very stringent criteria and quality control were key in obtaining units that allowed systems of such large scale to meet all requirements.
- Maintain neutron shielding of the Target Area. The target chamber is located in the center of the Target Area Building. The walls of this building are six-feet-thick concrete and twelve-feet-thick where the laser beam tubes penetrate the target bay walls.

million) poured the concrete foundations and monolithic mat floor slabs for the switchyards and target bay (six feet thick) and the foundations for the laser building.

- Nielsen Dillingham of Pleasanton built the Optics Assembly Building (\$17.1 million) and the laser building's envelope the structural steel shell, the metal skin, and the roof (\$11.9 million).
- Hensel Phelps of San Jose, (\$79.4 million) completed the interior of the laser building with mechanical and electrical utilities as well as architectural finishes, placed the laser bay monolithic mat slabs (three feet thick) constructed the site utilities, and the central plant (which includes boilers, chillers and cooling towers).
- The seventh construction package was awarded in spring 1998 to Nielsen Dillingham (\$ 75.8 million) to build the target area building envelope, mechanical and electrical utilities, and the architectural finishes; the target area building includes the switchyards, target bay and diagnostics building.

Over the course of constructing the conventional facility, members of the core team changed. In December 2000, Roberts left her role as the Beampath Infrastructure System (BIS) associate project manager and moved into NIF Systems Engineering as the facility integration team leader for integration of BIS with the rest of NIF. In this role, she is responsible for integrating the installation of the laser with the laser commissioning and early operations activities.

Jeff Atherton became the BIS associate project manager. In this role he's responsible for installing the largest, most complicated scientific tool — the laser and target systems — within the confines of the conventional facility.

Mike Smith, the original Sverdrup construction manager, handled the conventional construction until April 2000. Smith's knowledge of the conventional facilities enabled him to transition into a key role in planning the critical installation sequence for the beampath hardware and supporting utility systems. Now the manager of Field Engineering, Smith is focusing on improving communication in the field so workers better understand what they're doing.

"This is the space program of the new millennium," Smith said. "This is the one legacy project of my career that I'll always think about, and it's what I want everyone who has worked on NIF to know — that this will be the project their grandkids brag about. We are involved in something that is really great."

Kempel maintained his role as conventional facilities design manager through all the design and construction efforts started in January 1996 through the recent completion. He likens the challenge of NIF to former President Kennedy's address to Congress in 1961, when he challenged the nation to put a man on the moon before the end of the decade. At the time, peo-

ple working in the field thought Kennedy's statement was outrageous because "we didn't have the technology to do it, but lo and behold," Kempel said. "If you need the technology, you develop it so you can achieve your goals.

"We need NIF to maintain the safety and reliability of our nuclear weapons, so we're developing the technology necessary to make NIF a reality."

Jack Heffernan and Don Hotaling, Jacobs construction managers, finished the conventional facility job. Hotaling is now the Jacobs general construction manager for the Beampath Infrastructure System work.

#### Beyond the conventional facility

Jacobs and its subcontractors are currently installing the backbone of the laser system – the beampath and utilities for Cluster 3 in Laser Bay 2. They expect to have the beampath clean, aligned and ready for Line Replaceable Units (LRU) to be installed by next summer.

Other work includes: construction in the Master Oscillator Room (MOR) and Control Room; installing and commissioning the Power Conditioning System module in Capacitor Bay 3 (CB3); and installing beampath and utilities for the first beam quad in Switchyard 2 (SY2) and Target Bay (TB). The turnover of SY2 and TB beampath and utilities for the first beam quad, ready for Line Replaceable Unit (LRU) installation, is planned for late calendar year 2002.

"First light" to target chamber center is only a couple of years away.



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